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F. C. Cherry

TWO PAPERS

ON THE USE OF

OIL: ASPHALTUM

IN

ULCERS

OF THE

INTESTINES, LUNGS, and other VISCERA:

TAKEN FROM THE

Verbandelingen van de Maatschappye te Haarlem,

BY THOMAS HEALDE, M. D.

FELLOW of the ROYAL COLLEGE of PHYSICIANS;
and of the ROYAL SOCIETY—GRESHAM
PROFESSOR of PHYSIC, and PHYSICIAN of the
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—η δε κρισις ΧΑΛΕΠΗ—

ΙΠΠΟΚ. ΑΦ.

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Pater-noster Row.

[Price One Shilling.]

*Such Apothecaries as have not Leisure
or Conveniency for preparing the
OL: ASPHALTI, may be furnished
with it, by Mr. WILLIAM BARTLETT,
Chemist, in Lothbury.*

TO

Dr. EDWARD BARRY,

FELLOW OF THE

ROYAL COLLEGE

OF PHYSICIANS:

SIR,

THE Search after Specifics has been of late Years so frequent, the Success of those most recently receiv'd as such so inadequate to the general Expectation, and after all, their real Merit so little determin'd; that it may justly be doubted, whether to extend the Knowledge of a Remedy strongly recommended, be to do most Good or Harm to Society.

In deed, whilst a Medicine capable of curing a Disease whatever be it's Cause, or howsoever variously such Cause be modified in different Constitutions, is not thought impossible to be found, we need not wonder much at the Frequency of the Pursuit.

For

For, besides the Temptation of certain Fame and Emolument to the Inventor, no previous Culture of the Intellect seems very necessary for the Application of such sort of Medicines;—no careful Attention to Symptoms,—no laborious Study of the Observations of former Ages, or of different Nations. On the other hand, an Hippocratic Diligence in remarking the most minute Appearances of Diseases, altho' it may gradually produce a more accurate Distinction of Causes, and the Knowledge thereby acquir'd be more solid, proceeds slowly, and requires Labour without End: whilst Life is too short for an Individual to expect he can add much to what is already known; and Acquisitions thus made procuring no fame nor profit to the Acquirer, he must be satisfied with the Consciousness of discharging his Duty, and the uncertain Hope of a little posthumous Praise from a very few.

An Endeavour to multiply our Resources in Cases of Difficulty and Danger may nevertheless be useful: provided neither Ignorance nor Indolence presides at the Experiments;

ments; provided too credulous an Expectation of the wonderful on the one Side, or Prejudice on the other, renders not the Prescriber inattentive to those minute circumstances, which sometimes prevent, or insure Success. How often does even the Bark fail, in the cure of Intermittents? How seldom is the Failure justly attributed to the Medicine only?

Whether or not we have been in too much Haste to make our practice simple, before we had sufficiently analyzed Diseases to deduce our Indications with sufficient Simplicity, and Justness, I presume not to decide. Certain it is, that too much has often been expected from a simple Remedy: and it is no less certain, that very simple Diseases do not so often occur to the Judicious, as to those who unable to see deeper than the Surface, suppose nothing can exist beyond their View.

*But however this be: in the following Cases, tho' related perhaps with too much Bre-
vity, enough is said of the Ol: Asphalti to
excite Curiosity: and the Case of a Patient
unhap-*

unhappily affected with an internal Ulceration, (which I may probably hereafter detail,) having induc'd me to procure this Translation, I have committed it to the Press, in Order that the Medicine may undergo a more severe and extensive Trial in England. Shou'd it, like some others lately introduced, not perfectly answer our Wishes, yet from comparing a Variety of Trials, some farther Insight into the Nature and Effects of internal Suppuration may perhaps be deriv'd, -- when the Evidence of Facts faithfully and accurately stated is laid before the Public.

*If the dangerous Nature of these Complaints in themselves be consider'd, -- how often they occasion, or are complicated with the most perplexing Symptoms, -- and how much is said in the 2d Paper to prevent Expectation from running wild; there may be Reason to hope this Medicine will not become popular: and that it will be employ'd only by Men of Science, who know when, and with what Combination of other Medicines to give it— Men who delight in Improvement, and who
are*

DEDICATION

v

are accusom'd to observe with Accuracy.

*These Qualities, SIR, join'd to the Subject,
naturally brought YOU to my Thoughts. For
who has shewn more Attention to pulmonic
Suppurations? Who has treated of them more
judiciously? Excuse this feeble Tribute of
Praise, dictated no less by the Justice, than
the Respect of,*

S I R,

your obliged

and humble Servant


T H O: H E A L D E.

*Fenchurch Buildings
London.*

Dec. 18th, 1768.

THE USE OF
OL, ASPHALTI
IN
ULCERATIONS
OF THE
VISCERA.

by M. HOFKENS DE COURCELLES,

O cure an inveterate *Ulceration* of any of the principal *Viscera*. is not a Matter of the smallest Importance, the common Practice being attended with little, or no Success. A Medicine hath, in all the Cases wherein I have tried it, succeeded perfectly. It is not the part of a good Citizen, to say nothing of a Physician, to keep in Reserve any thing which can rescue a Fellow-creature from a Disease, much less from almost certain Death. This Medicine, Gentlemen, I shall lay before you, together with a few Cases of which I had taken an Account.

It

It consists only of an Oil distill'd from the *Asphaltum*, or *Bitumen Judaicum*, and the Manner in which I have had it prepar'd is the following.

R. *Asphalti sive Bitum: Judaic: ℥ij*
Salis decrepitati ℥ss
Arenæ puræ ℥jss

Put these into a Retort, and distill with a strong fire. There comes over first a little Water, which you may throw away, taking off the Recipient, or let it remain with the Oil, to be separated afterwards with a Funnel. There comes next a black Oil, which is precisely what I make use of. Continue to draw it off whilst it continues of a black, or deep brown colour.

The Manner of using it, is, to give from ten to fourteen Drops in a Morning fasting, and the same quantity going to Bed. I have given fourteen Drops four times a Day, at the medical hours, without any oppression or considerable disorder. Perhaps twice as much may be given. The Dose may be varied according to the Age, and Strength, the Nature,
and

and Duration of the Disease. It is most conveniently taken drop'd upon Sugar.

CASE the 1st.

Cornelis Huisman, about 20 Years old, of a constitution tolerably good, had an *Hectic Fever* after the Small Pox accompanied with a discharge of *Matter*: for which, after having tried several Medicines a long Time in vain, he ask'd my Advice. I found his Fever continual, increasing in the afternoon, with Sweats about Morning, and a foul Slough on the Tongue: his Urine *fætid*, of a deep brown Colour, and *purulent*: his Breathing difficult, a tickling Cough affecting him sometimes for hours together, and the Discharge from the Breast *fætid* and putrid *Matter*. The 7th of last July I gave him the Oil, ten Drops of which he took twice a Day. I heard nothing of him till the 26th, when he came to me with a joyful Countenance, free from Fever, his Appetite natural, and no remains of his Disorder but a crude expectoration at some Times, such as happens upon a Cold,
and,

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and which soon after vanish'd. During the Cure he avoided salted Meat, and every thing heating.

CASE the 2d,

Lena Berkhoud, 28 Years old, of a Sanguine Constitution, and Asthmatic from her Infancy, contracted a Pleurisy four Years ago, after an Affright at *Amsterdam*, which terminated in a Suppuration of the Lungs: and the disease increasing in spite of the Medicines employ'd, she this Year ask'd my Advice. On the least Motion she panted for Breath: she had a little Fever which was augmented after Eating, and expectorated a fetid Matter. The second of July she began the Drops: on the 15th she expectorated little, breath'd tolerably well, her *Menses*, which had long been missing reappear'd, and before the end of the Month scarce any thing of her complaint was to be observ'd. The Regimen directed was, what is usual in such Cases, *antiseptic*, and of easy digestion: but after her recovery she own'd she had not abstain'd from any-thing: having
several

ULCERS OF THE VISCERA, 5

several times eaten fry'd Bacon, and the like : which however blameable, shews not less the power of the Medicine.

CASE the 3d,

Lena Bont, Aged about 30, from a fall down Stairs three Years ago, got a severe Bruize of the Loins, which was thought dangerous by the Surgeon attending. At length supposing herself cur'd, she came to *Alkmaar* from *Amsterdam*, in search of a Service. She had however some time after a continual Pain in the Loins, augmented on change of Weather, till about half a Year ago, when she began, after some violent motion, to discharge *Matter* by Urine, and shortly after to raise the same by Coughing and Vomiting. To no purpose were the Medicines advis'd, and in March this Year she apply'd to me for Assistance. I found her affected with an *hectic* Fever, much oppress'd, and her Breathing short in the highest Degree, so that the Speech falter'd. She rais'd a large quantity of fætid *Matter* by Coughing, and discharg'd also the same by

Urine,

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Urine, which was some times bloody, like that expectorated. The discharge of *Matter* was so great as sometimes to amount in one Night to more then a Quart: and all this without the least relief, but rather with an Aggravation of the Symptoms. I gave her *Emollients*, *Expectorants*, gentle *Diuretics* &c without Amendment. The *Cortex* also did nothing: so that I was constrain'd to use the Oil, which I had delay'd for fear it's usual smell shoud incommode the Family, who, from a generous compassion, were unwilling to dismiss the Patient from their service. She was order'd the Drops the begining of May, and her Strength daily increasng, the Fever declining, and her Appetite growing better, before the end of July she had recoverd that Strength, which she had been losing for Three Years past, and at this Time holds her Place here without any complaint.

CASE the 4th,

Ary Krans, an Inhabitant of the Sea-coast, 66 Years old, and of strong Fibres, is now
using

using the Medicine, and altho' at this Day not quite cur'd, has nevertheless found great Amendment. About a Year ago he fell upon the side of the Breast, and the 28 of July last ask'd my Advice. He had a full Countenance, Fibres relax'd, a continual Fever which increas'd after Eating, a pain in the place struck by his fall, a Cough, and Expectoration fætid, purulent and bloody. I at the first directed him ten Drops twice a Day, and the 29th, of August found him in a better State, the Pain above mention'd gone, the Cough very little, the Expectoration without Blood, white, in small quantity, and the Breathing easy: but he was weak, and his Countenance full. I directed some Cordials with the Medicine.

I might recite more Cases; but these are Examples sufficient, and I have declar'd before that it has done Service to all upon whom I have try'd it.

Alkmaar, September 5th, 1764.

of the *OL: ASPHALTI*
in ULCERATIONS
of the *VISCERA*.

Paper the 2d, by the same.

SINCE my former Communication concerning the *Ol. Asphalti* in the 8th vol. of your Transactions, I have remark'd that Some have approv'd of it, others have doubted, and many neglected it. This would not have been a just Reason for my writing again on the same Subject, being very sensible that this Medicine could not in a short time gain the general Approbation: since other Medicines, however convincing their Efficacy, have requir'd half a Century to efface the Prejudices caus'd by Self-sufficiency, and Aversion to new discoveries. Add to these, Trials often improperly made, from Ignorance of the Disease itself: a *mucous* discharge
being

being taken for *Pus* from ulcerated Lungs, and the Oil employ'd for it's cure, even by Persons in some Reputation: of which in this short time I could produce many Examples. But I am oblig'd to enlarge a little upon the Subject, finding the Ulceration I spoke of taken in a more extended Sense than I ever design'd. If by the cure of an inveterate Ulceration I had mean'd a Cure, not of that Disease only, but of all the Diseases of a different Nature attending it; I shou'd have departed from Truth, in saying, my Trials had succeeded in all *Temperaments* and Persons. Far from this: I have been forc'd to see many die since I knew this Medicine, not having been able to remove the preceding Disorder, which render'd the Cure impossible, and demanded Medicines of a very different Class.

I thought it self-evident, where the Cause of a Disease was understood which prevented the Cure, that such Cause ought first to be remov'd by remedies directed particularly thereto. I never suppos'd it necessary for ex-

ample, where an Ulcer happens in the Bladder from the Irritation of a Stone, to say, *First remove the Stone, and then try to cure the Ulcer.* Experience however shews, that this is not to be imprudently done. I shall here relate some Cases, merely to point out the Reasons why a Cure is sometimes not obtain'd.

CASE the 1st,

A certain Youth had for some years an Acrimony of the fluids, which gradually increasing, not only wasted him, but began to corrode the Vessels in different places: several Spots appear'd in the Legs, a Bleeding at the Nose sometimes came on, he was stiff, full of pain, and his *Saliva* acrid. At length the Acrimony corroded the Vessels of the Lungs, and a bloody Expectoration ensued, which soon terminated in an Ulceration. This having continued two or three years whilst the Acrimony remain'd uncorrected, was attempted in vain to be cur'd by the *Ol: Asphalti*.

If Acrimony then and Corrosion of Vessels produce an Ulceration, 'tis easy to conclude
that

that a Medicine appropriated to the latter, can't possibly remove the Cause, which must continue corroding as before. Now if it be so sharp as to corrode Fibres already full grown, will it not more easily destroy such as are forming, the very beginning Granulations of flesh, by which the Wound must be clos'd? To form good Matter the circulating fluids must be balsamic: a Condition directly opposite to such Acrimony. Thus, Surgeons constantly observe, that when Ulcers happen in the Legs or other parts, from degenerated Juices, they are not to be cur'd by the Remedies apply'd, however in other Respects efficacious, before the *Cacochymy* or bad Habit is remov'd by other Remedies, or the corrosion, in the place at least, prevented.

These two contending Circumstances being observ'd by *Galen*, made him pronounce the Ulcer incurable without removing the Cause. He says, "*these Ulcers of the Lungs only are*
" incurable, which are caus'd by the Erosion of
" the vitiated Juices: because of the great
" Length of Time necessary in order to correct
 B2 *them*

“ *them.* ” (*)

We here see what that great Physician deems necessary e're it be possible to cure such a Disease; and that far from first thinking of Remedies to heal the Ulceration, we ought *first* to amend the Juices. If more Authority be necessary, let us instead of all others, produce that of the sagacious *Bennet*, who in his *Theatrum Tabidorum* says, “ he does not remember to have observ'd any one cur'd whose Lungs were corroded, without having the whole Mass of Blood sweeten'd. ” (†)

Cafe

(*) “ *ex iis vero qui Ulcus in Pulmone habent, ii soli mihi insanabiles videntur, qui ex Succis vitiosi Erosione illud habent: nam longo arbitror tempore omnino opus esse ut Succis corrigatur Vitium.* ” Meth: Med: Lib V. cap. 14 Ed. Junt.

(†) “ *Neminem quidem, cui Pulmo erosus fuerit sine Sanguinis totius Edulcoratione curatum memini.* ” Pag. 60.

IN ULCERS OF THE VISCERA, 13

C A S E the 2d,

A Child had some years since an Eruption on the Head, which being imprudently repell'd, caus'd a Corrosion and Ulcer of the Lungs, for which also the Oil was employ'd, and to no Purpose.

Here it is no less easy to perceive, that this particular Sort of Acrimony, many different Species of which may affect the Body, ought to have been corrected as well as in the former Case. But we also know by many Examples, that Nature having once chosen the place of Expulsion, sometimes does not readily obey, till the Matter to be discharg'd is again brought back to the chosen place. Cou'd the Oil drive this Matter to the place where she had us'd before to discharge it?

C A S E the 3d,

A Person 28 years old, all whose Ancestors even to the 4th Generation died of Consumptions of the Lungs, had already some years born Marks of this Tendency imprinted strongly.

Nature

Nature had sometimes reliev'd herself by a Bleeding at the Nose, which being once stop'd imprudently, a Bleeding from the Lungs succeeded, and soon after an Ulceration: of which a Cure having been unsuccessfully attempted by the Oil, it was thence concluded, however weak the foundation, that it was not of Use in any Ulcer. But I ask any Judge of these Matters if the Oil cou'd be much depended on in such a Case? An hæreditary Infection had here preceded, and who knows not the Changes of fluids and solids which are found in some singular *Idiosyncrasies*? Who can ascertain what was in this Case the particular Conformation of Parts? What sort of Degeneration in the fluids or Solids? Could a Medicine calculated for the Ulcer, and which could be apply'd only by means of the circulating fluids, be of much Service in this particular unknown Change, and where perhaps the best that could be done was to palliate? Could the Ulcer be cur'd without having first remov'd the preceding Degeneration? It appears to me impossible.

I might relate more Instances of a fimilar Nature: but fhall only fay, that I have not found the Medicine ferviceable, employ'd *fingly*, except in fuch Ulcers as were the Confequence of Bruizes, Inflammations or Abceffes, in Bodies previously found. In Ulcers of the Bowels, however fætid, purulent, or Ichorous the *Matter* was, I have obferv'd it to be the moft powerful Remedy: and it has been fo, altho' an hectic Fever had been excited by the Abforption of the *Matter*. I fpeak only as I have found: and defire that if People find the Oil, ev'ry thing being duely noted, do little Service to fome, they will carefully examine if fome Indifpofition be not attendant, which retards the Cure, and let that be firft remov'd by proper Medicines. I fhall make farther Trials, and whenever it difappoints my Expectation, fhall not fail to publifh the Cafe, the firft Opportunity.

Great care muft be taken in the Choice of the Oil. I have had fome counterfeit; fome, from which the Water had not been feparated. An ounce of *Phlegm* is generally taken
from

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from ſbi of Bitumen. A pitchy, reddiſh Subſtance is driven over by a ſtrong fire, which has leſs ſmell, and which I have not try'd. A Bitumen is ſold which when rubb'd with Salt yields no ſætor. This alſo I have not try'd leſt it was adulterated.

Thus much I thought in might be uſeful to ſay in Support of the Cure by the *Ol: Asphalti*, and ſhall here add the Caſe of a Patient labouring under both Ulceration and Acrimony.

CASE the 4th,

Marytje Ganze, Wife of *Dirk Dignum*, 34 years old, and ſubject to rheumatic Pains, after a Cold four years ago had an unexpected *Flooding*. Paying little Regard to the Complaint, and ignorant that ſhe was Pregnant, ſhe continued her Work and miſcarried. Her Cold increas'd, and her Cough was attended with a Pain betwixt the Shoulder blades, which remov'd thence to the right Side, where it fixed: ſo that it was very troubleſome when ſhe cough'd and ſhe cou'd
neither

neither lie on that Side, nor bend herself. In this Condition, except a little Increase of Fever and Oppression, she continued two Years and an half; when one Day she was seiz'd with a Faintness and Anxiety, and rais'd a large Quantity of *Matter*, which seem'd to come from the very place in the right Side, where the Pain had fix'd some years before. According to all the Symptoms, a *Vomica Pulmonis* had broke. The sharpness of the Juices, apparent before this Disorder from the shooting Pains, salt *Saliva*, &c, having prevented the healing of this *Abscess*, it some time after became a putrid Ulcer. At this time, viz. January 1765, I was call'd in, and found her in the following State. Her Body was emaciated, extremely enfeebled, and full of Pain: her Visage pale, her Fever continual, and increasing towards four or five after Noon: her Pulse low and weak, the Expectoration perfect *Matter*, sometimes watery with little granulous Substances, sometimes bloody and of a saline Taste. In these Circum-

cum-

cumstances scarce knowing what Method to pursue, I gave her the *Ol: Asphalti*. But observing little Benefit from the Use of an Ounce, I gave her instead of it, *Edulcorants*, and vegetable *Pectorals* of the mucilaginous kind: upon the constant Use of which the Pain abated: the Breast remaining the same, except that the Cough was somewhat less. The Patient being supported by Alms, and the Physician of the Town, according to the Custom here, being changed quarterly, She in April fell under the Care of M. *Van den Berg*, who continued the Use of *Edulcorants*.

In July she again came under my Direction: when observing the Acrimony pretty well sheath'd, altho' neither Expectoration nor Fever were much alter'd, and that the Patient was now confin'd to her Bed, I again gave her the Oil. She gain'd Ground: the Expectoration was uniform in Colour, white, purulent, and of similar Consistence. I repeated the Medicine: but was soon after at a stand, when the Patient told me that as soon

as ſhe us'd it ſhe rais'd pure Blood. I was ſurpriz'd a little : but more ſo when ſhe add-
ed, that this Oil had not ſo fætid a ſmell, nor
the ſame Taſte as the former : and upon ex-
amining it in both Reſpects, I found it was
not ſuch as it ought to have been. I cauſ'd
ſome genuine to be procur'd, and ſince the Uſe
of it the right Side is become free, ſhe can
bend upon it and turn as formerly, the Fever
is gone, her Strength is returning, tho' ſlow-
ly, and ſhe already does her houſehold Bu-
ſineſs. The *Menſes* which were obſtructed
appear'd about a Month ago, and are now
return'd at the due time. About a fortnight
ſince ſhe felt ſome Pain in her Side, ſhoot-
ing into the *Abdomen*, and again upwards :
which being found to ariſe from Worms,
I gave her Medicines for their Expulſion,
and the Pain ceas'd after the Diſcharge of
a large Quantity of *Aſcarides*. The Breſt
is well, and no Fever has appear'd ſince laſt
Auguſt.

I have cauſ'd from four to fix Drops of
the

the Oil to be given twice a Day to two Children, who, during the Suppuration and beginning Desiccation of the Small Pox, labour'd under a very putrid Fever: and found, It ceas'd in one the next Day: in the other it was less the Day following, and the 3d Day quite gone.

Whether this was to be ascrib'd to the Medicine, or to the natural Course of the Illness, I am unable to determine, not having made any more Trials.

Alkmaar October 1st, 1765.

F I N I S.

EXTRACTS relative to the natural and chemical History of the *Drug*.

ASPHALTUM. BITUMEN IUDAICUM Officin.
Bitumen sub-friabile atrum. LINN. Syst. Nat.

A Bituminous Substance, hard and friable, of a purplish, shining black; taken from the Earth in some Countries; and often from the Sea, in a State of Softness, and gradually condensed to the usual Hardness. It is commonly spurious, being made of Pitch and some Empyreumatic mineral Oil. *Neuschattel* furnishes the best. Internally taken it gives Relief in Colic Pains. *VOGEL Mat. Med. Ed. ult.* P. 392.

That is prefer'd which is brought from *Judæa*, and particularly from the *Dead Sea*, whence it's Name. *BUCHNER, Fund. Mat. Med.* P. 133.

It is not often among *us* to be met with, it's place being supplied by different bituminous Substances: sometimes by the *Caput mortuum* remaining after the Distillation of Amber, and sometimes by common Pitch.

It's melting in the Fire only partially or not at all, and the Quantity of Ashes it leaves on burning, distinguish it from all these Substances. LEWIS *on the Mat. Med.*

NEUMAN examin'd three Sorts: the blackish brown *native* Bitumen, the best *officinal* Sort, of a blacker Colour, somewhat bright; and an inferior one, black and glossy like common Pitch.

The *Native* has no smell, is not acted upon by Water, highly rectified Spirit of Wine, Oil Olive, nor the essential Oils of Aniseed or Turpentine. In the fire It grew red hot like Turf, and when cold fell into Powder. Held over the fire in a proper Vessel it did not melt, but crumbled as before, and emitted a Vapour which took Flame on the Approach of a piece of lighted Paper. Four Ounces distill'd in a glass Retort yielded only three Drams of an Oil greatly resembling the *Petrolea*, but more Empyreumatic; and a little *Pblegm*. It was observable in the Distillation, that the bituminous or oily Matter in separating from the earthy parts, vi-

sibly

fibly melted, and then arose in invifible Vapours: whereas in open Veffels there was no Appearance of Fufion; the Oil immediately exhaling in the Air. The *Caput mortuum* weigh'd three Ounces and an half: two of which were reduc'd by Calcination to one Ounce fix Drams, and yielded on Elixation with Water, feven Grains of an alkaline Subftance, but not a pure alkaline Salt.

The beft *Officinal* Sort, (viz. of the *Brandenburgh Shops*) is of a difagreeable Smell like that of Garlic or *Afa fatida*: foluble both in Oil Olive, and the diffill'd Oils of Anifeed and Turpentine, and uniting in the fire with Pitch and Wax. A fmall Portion of it is taken up by rectified Spirit of Wine: about two Scruples of fpirituous Extract being obtain'd from two Ounces. It fwims untouch'd on the Surface of diffill'd Vinegar, and Spirit of Salt: to Spirit of Nitre it gives a yellowifh Tinge, partly fwims ou the Surface, and partly falls to the bottom: to Spirit of Vitriol it gives a deeper Tincture, and totally fwims. It tinges alkaline Lixivsa yellowifh;

lowish; sinking in the caustic, floating on the simple. Vinous Spirit of *Sal ammoniac* extracts the deepest colour, the watery Spirit a very slight one: it sinks in the former, in the latter, part of it swims. Four Ounces yielded on Distillation two Ounces five Drams and one Scruple of Oil, and about two Scruples of *Pblegm* only: above an Ounce of *Caput mortuum* remaining. The Oil was thickish, of a dark brown Colour, with a strong Smell and Taste like those of Garlic; rising first in white, then in yellow, and at last in darker colour'd Vapours. As soon as the yellow Fumes appear'd, the Matter in the Retort began to melt. Nothing saline could be extracted by hot Water from the Oil, or the calcined *Caput mortuum*,

The inferior Pitch-like *Asphaltum* melted as easily as common Pitch. From four Ounces I obtain'd almost three Ounces of a dark brown Oil: about half a Scruple of *Pblegm*, and the Residuum making up the 4th Ounce: scarce any thing saline being discoverable in the Residuum by Calcination and Elixation
with

with Water. Two Ounces being digested in rectified Spirit of Wine, the filtered Liquor left on Distillation fifteen Grains of Extract: the Spirit drawn over smelling of Garlic or *Asa fatida*. Upon digesting a Scruple in two Drams of rectified Spirit, no visible Solution being made, I added an hundred Drops of Oil of Savin: the Spirit there-upon appear'd considerably tinged. On digesting another Scruple of the Powder with one Dram of Oil of Savin, nearly all the Asphaltum was soon dissolv'd: on adding rectified Spirit of Wine it was thrown down again, and the Spirit scarcely appeared to be tinged.

From these Experiments it is evident, that the *officinal* Asphalta are very different from the *native* Bitumen. Those of other Countries seem no more genuine than ours: for we find in *Du Hamel's* history of the French Academy of Sciences, that $\frac{1}{2}$ of the french *Asphaltum* yielded fourteen Ounces of Oil: whilst the *native* Asphaltum yields not one fourth so much. NEUMANS *works translated* by Lewis. P. 243, and seq.

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